SPIRAL GROOVE DRY GAS SEALS

50 years of industry firsts

CELEBRATING 50 YEARS OF DRY GAS SEALS

1970 — Awarded first spiral groove dry gas seal patent

1975 — First field test: Turboexpander

1976 — Introduction of the Type 28 dry gas seal, which revolutionised gas compression sealing

Type 28XP

1982 — Installation of the largest spiral groove dry gas seal (295mm/11.625 inches)

1985 — First installation of a dry gas seal on an offshore platform

1991 — Type 28XP, the world's first elastomer-free dry gas seal, launched

1998 — 100,000,000 total dry gas seal operating hours achieved

Type 28EXP

2000 — First commercial ultra-high-pressure dry gas seal (350 bar/5076 psig)

2004 — First LNG megatrain dry gas seal installation

2005 — World's largest dry gas seal at 406mm/15.984 inches balance diameter installed

2008 — Type 93FR next generation separation seal launched

Aura® 220

2013 — First known successful dry gas seal test at 650 bar/9,427 psig

2014 — Next generation Aura® 220 gas seal launched

2018 — Aura® 120NS gas seal launched

2020 — Implementation of John Crane Sense® for remote dry gas seal health monitoring

2021 — Carbon LF™ new primary ring material developed for dry gas seals

2022 — Type 93LR low leakage separation seal launched

2025 — Type 93AX coaxial separation seal launched

Type 93AX

johncrane.com